



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION

OF
HÖSSEL ET AL.

SERIAL NO. 09/604,001

FILED: JUNE 26, 2000

FOR: USE OF CROSSLINKED CATIONIC POLYMERS IN SKIN COSMETIC AND DERMATOLOGICAL PREPARATIONS

TO: HON. COMMISSIONER OF PATENTS AND TRADEMARKS

MAIL STOP: AF

CONFIRMATION No.: 2632

GROUP ART UNIT: 1615

EXAMINER: B. M. FUBARA

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Alexandria, Va 22313-1450, on:

Date of Deposit April 05, 2005

Person Making Deposit SABINE BERG

Signature S. Berg

Date of Signature April 05, 2005

Sir:

1. ☐ NOTICE OF APPEAL: Applicant hereby appeals to the Board of Appeals from the decision dated -/-, of the Primary Examiner finally rejecting Claims -/-.
2. ☒ BRIEF ON APPEAL in this application is transmitted herewith.
☐ Applicants hereby request an Oral Hearing.
3. ☒ Applicants hereby request entry of their timely reply dated February 21, 2005, for purposes of appeal.
4. ☐ Applicants hereby petition for a -/- month extension of time under 37 C.F.R. §1.136(a).
☐ A petition for a -/- month extension of time including the requisite fee of -/- has been submitted along with the reply under 37 C.F.R. §1.116 dated -/-.
5. ☒ The following fee(s) in the amount of \$500.00 is(are) paid by credit card (Form PTO-2038 enclosed):
☒ The \$500.00 fee required under 37 C.F.R. §41.20(b)(2).
☐ The -/- fee required under 37 C.F.R. §41.20(b)(3).
☐ The -/- fee required under 37 C.F.R. §1.17(a).
☐ Charge the following fee(s) in the amount of -/- to Deposit Account No. 14.1437:
☐ The -/- fee required under 37 C.F.R. §41.20(b)(2).
☐ The -/- fee required under 37 C.F.R. §41.20(b)(3).
☐ The -/- fee required under 37 C.F.R. §1.17(a).
☐ A fee is not required (Fee paid in prior appeal).
6. ☒ The Commissioner is hereby authorized to charge any fee which may be further required, or credit any over payment, to Deposit Account No. 14.1437. A duplicate copy of this sheet is attached.

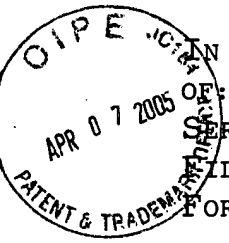
Respectfully submitted,

NOVAK DRUCE DELUCA & QUIGG

Jason D. Voight

Reg. No. 42,205

AG/1615
gms



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION
OF:
HÖSSEL ET AL.
SERIAL No. 09/604,001
FILED:
JUNE 26, 2000
FOR:

MAIL STOP:
CONFIRMATION No.: 2632
GROUP ART UNIT: 1615
EXAMINER: B. M. FUBARA

USE OF CROSSLINKED CATIONIC POLYMERS IN SKIN COSMETIC
AND DERMATOLOGICAL PREPARATIONS

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Alexandria, Va 22313-1450, on:

Date of Deposit April 05, 2005
Person Making Deposit SABINE BERG
Signature [Signature]
Date of Signature April 05, 2005

Honorable Commissioner
for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL UNDER 37 C.F.R. §41.37

Sir:

This is an appeal from the Examiner's rejection of Claims 1 to 15, dated November 30, 2004. Claims 1 to 15 are currently pending.

REAL PARTY IN INTEREST:

The real party in interest is BASF Aktiengesellschaft, 67056 Ludwigshafen, Germany.

RELATED APPEALS AND INTERFERENCES:

To the best of the undersigned's knowledge, there are no related appeals or interferences within the meaning of 37 C.F.R. §41.37(c)(1)(ii).

STATUS OF THE CLAIMS:

The claims on Appeal before the Board of Patent Appeals and Interferences are Claims 1 to 15. A copy of the claims is found in the attached Appendix.

STATUS OF THE AMENDMENTS:

Claims 1 to 15 as currently pending were presented by appellants with their paper dated February 13, 2004, in reply to the Examiner's non-final rejection mailed on September 23, 2003.

SUMMARY OF THE INVENTION:

Appellants' invention is drawn to a skin cosmetic or dermatological preparation, which consists essentially of customary additives and, as a particular constituent, at least one certain copolymer. The certain copolymer which is referenced in appellants' Claims 1 to 13 is, in its broadest aspect, a copolymer which is obtained by

- (i) a free-radical initiated copolymerization of a monomer mixture which comprises
 - (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
 - (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
 - (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,
 - (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and
 - (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; and
- (ii) a subsequent partial or complete quaternization and protonation of the copolymer where the monomer (a) is unquaternized or only partially quaternized.

Appellants' Claims 14 and 15 further limit the constituents of the monomer mixture which are employed in the free-radical initiated copolymerization (i). According to Claim 14, the respective monomer mixture consists of the monomer constituents (a), (b), (d) and (e), and according to Claim 15, the respective monomer mixture consists of the monomer constituents (a) to (e).

In all of the embodiments of the certain copolymer(s) referenced in appellants' claims the copolymer is formed using from 0.01 to 10%

by weight of at least one crosslinking monomer, that is, at least one monomer which has at least two ethylenically unsaturated, non-conjugated double bonds¹⁾.

According to appellants' invention, the presence of the certain copolymer improves the skin care properties of the skin cosmetic or dermatological preparation because the copolymer contributes to the moisturizing and conditioning of the skin and can achieve an improvement of the skin tolerability of the preparations. Additionally, the copolymer can act as a thickener in the preparation²⁾.

ISSUE(S) PRESENTED:

I) Whether the Examiner erred finding that the subject matter of appellants' Claims 1 to 15 was *prima facie* obvious under 35 U.S.C. §103(a) in light of the teaching of *Uhl et al.* (US 5,219,969).

II) Whether the Examiner erred finding that the subject matter of appellants' Claims 1 to 15 was *prima facie* obvious under 35 U.S.C. §103(a) in light of the teaching of *Tropsch et al.* (US 5,869,032).

III) Whether the Examiner erred applying Claims 1 to 13 of *Tropsch et al.* (ibid.) against appellants' Claims 1 to 15 under the judicially created doctrine of obviousness-type double patenting.

IV) Whether the Examiner erred finding that appellants' Claims 14 and 15 were indefinite under the provisions of 35 U.S.C. §112, ¶2.

GROUPING OF THE CLAIMS:

For the above issue (I), Claims 2 to 13 and 15 stand and fall with Claim 1 and Claim 14 stands and falls alone. For the above issue (II) Claims 2 to 15 stand and fall with Claim 1. For the issue (IV) each of the referenced claims stands and falls alone.

A R G U M E N T S

I) The Examiner erred finding that the teaching of *Uhl et al.* rendered the subject matter of appellants' Claims 1 to 15 *prima facie* obvious within the meaning of 35 U.S.C. §103(a).

1) Cf. constituent (e) in Claims 1, 14 and 15; and page 8, indicated line 4, to page 10, indicated line 18, of the application.

2) Cf. page 3, indicated lines 18 and 19, and page 13, indicated lines 10 to 17, of the application.

The teaching of *Uhl et al.* relates to crosslinked copolymers of (meth)acrylic acid³⁾ which are used as thickeners in textile print pastes⁴⁾. The respective copolymers are obtained by copolymerization of

- a) from 50 to 99 parts by weight of (meth)acrylic acid,
- b) from 1 to 50 parts by weight of at least one (meth)acrylamide compound represented by a particular formula (I)⁵⁾,
- c) from 50 to 10,000 ppm, based on the amount of (a) and (b), of an at least bifunctional crosslinker, and
- d) from 0 to 49 parts by weight of other monoethylenically unsaturated monomers,

in the presence of a free radical polymerization catalyst⁶⁾.

The certain copolymers which are referenced in appellants' claims differ from the copolymers addressed in the teaching of *Uhl et al.* because

- the copolymers of appellants' preparations defined in Claims 1 to 13 and 15 comprise at most 40% by weight of unsaturated acid moieties⁷⁾ whereas the copolymers addressed in the teaching of *Uhl et al.* comprise at least 50 parts by weight of (meth)acrylic acid units⁸⁾; and
- the copolymers of appellants' preparations referenced in Claim 14 don't comprise unsaturated acid moieties⁹⁾ whereas the copolymers addressed by the teaching of *Uhl et al.* comprise at least 50 parts by weight of (meth)acrylic acid units¹⁰⁾.

The Examiner argued that appellants claims were unpatentable under Section 103(a) in light of the teaching of *Uhl et al.* because "the difference in concentration will not support the patentability of

3) The expression "(meth)acrylic acid" is used here and in the following as a reference to acrylic acid and/or methacrylic acid.

4) Cf. abstract of *US 5,219,969*.

5) The formula has been omitted because the respective structure is of subsidiary pertinence to the issue.

6) Cf. col. 2, indicated lines 22 to 60, of *US 5,219,969*.

7) Cf. constituents (c) of appellants' respective monomer mixtures.

8) The optional other monoethylenically unsaturated monomers (d) of *Uhl et al.*'s copolymers also include unsaturated acids; cf. col. 4, indicated lines 18 to 34, at indicated lines 23 to 27, of *US 5,219,969*.

9) Appellants' respective monomer mixture consists of monomers (a), (b), (d) and (e) and unsaturated acids are outside of the realm of those monomers.

10) Cf. ftn. (7) above.

subject matter encompassed by the prior art unless there is evidence indicating the concentration is critical, it is not inventive to discover optimum workable amounts by routine experimentation"¹¹⁾. The Examiner's position appears to be based upon law which was developed or addressed by the Courts in decisions such as In re Wertheim¹²⁾, In re Woodruff¹³⁾, In re Geisler¹⁴⁾, Titanium Metals Corp. of America v. Banner¹⁵⁾, and In re Hoeschele¹⁶⁾. However, the respective law pertains to situations where the claimed range overlapped or was within a range disclosed by the prior art, that is, situations where the subject matter of the claims in question was actually encompassed by the prior art. The certain copolymers which are referenced in appellants' claims are, however, outside of, rather than encompassed by, the realm of the copolymers addressed in the teaching of Uhl et al. and the respective case law is therefore not deemed to be pertinent where appellants' invention and the teaching of Uhl et al. are concerned.

Where, as here, the claimed subject matter is clearly distinguished from the prior art, three basic criteria have to be met in order to establish a *prima facie* case of obviousness:

- (1) There must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference,
- (2) there must be a reasonable expectation of success, and
- (3) the prior art reference must teach or suggest all of the claim limitations.

Additionally, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and cannot be based on the applicants' disclosure¹⁷⁾. Where the teaching of Uhl et al. and appellants' invention are concerned neither one of the three basic criteria is met:

- (1) The teaching of Uhl et al. contains nothing which would have motivated a person of ordinary skill in the art to lower the amount of the unsaturated acids which are employed in the prepa-

11) Cf. page 3, lines 2 to 11, of the Office action mailed November 30, 2004, emphasis added.

12) 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

13) 919 F.2d 1575, 16 USPQ2d 1934 (CAFC 1990).

14) 116 F.3d 1465, 43 USPQ2d 1362, (CAFC 1997).

15) 778 F.2d 775, 227 USPQ 773 (CAFC 1985).

16) 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

17) Cf. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438, 1442 (CAFC 1991).

ration of the copolymer from at least 50 parts by weight to at most 40% by weight (*concerning Claims 1 to 13 and 15*), or to omit the unsaturated acids completely (*concerning Claim 14*), nor has the Examiner referred to any technical background knowledge which could reasonably be taken to provide the necessary suggestion or motivation;

- (2) The teaching of *Uhl et al.* contains nothing which could be taken to suggest or imply that a person of ordinary skill in the art could reasonably expect to arrive at a useful polymer when the amount of the unsaturated acids which are employed in the preparation of the copolymer is lowered from at least 50 parts by weight to at most 40% by weight (*concerning Claims 1 to 13 and 15*), or when the unsaturated acids are completely omitted (*concerning Claim 14*); and
- (3) *Uhl et al.* clearly cannot be deemed to teach or suggest a skin cosmetic or dermatological preparation which comprises a copolymer which contains no (*concerning Claim 14*), or at most 40% by weight (*concerning Claims 1 to 13 and 15*), of unsaturated acid units.

The Examiner's position that the subject matter of appellants' Claims 1 to 15 is rendered unpatentable under Section 103(a) by the teaching of *Uhl et al.* is, therefore, deemed to be in error.

II) The Examiner erred finding that the teaching of *Tropsch et al.* rendered the subject matter of appellants' Claims 1 to 15 *prima facie* obvious within the meaning of 35 U.S.C. §103(a).

The teaching of *Tropsch et al.* relates to quaternized copolymers which are suitable as active ingredients in hair styling compositions¹⁸⁾. The respective copolymers are obtained by free radical copolymerization of a monomer mixture comprising:

- a) from 5 to 50% by weight of a 1-vinylimidazole which is optionally quaternized;
- b) from 20 to 80% by weight of N-vinylcaprolactam;
- c) from 10 to 60% by weight of N-vinylpyrrolidone; and
- d) from 0 to 30% by weight of a further monomer which is capable for free radical copolymerization and has, as a homopolymer, a glass transition temperature of more than 20°C,

18) Cf. abstract of *US 5,869,032*.

and optionally a subsequent quaternization of the copolymer¹⁹⁾. Examples of monomers which are suitable as constituents (d)²⁰⁾ are

C₁-C₁₂-alkyl esters of acrylic acid or methacrylic acids, ..., acrylamides, ... acrylic acid, methacrylic acid, crotonic acid, ... hydroxyalkyl (meth)acrylates or alkylethylene glycol (meth)acrylates having 1-50 ethylene glycol units in the molecule.

The certain copolymers which are referenced in appellants' claims differ from the copolymers addressed in the teaching of **Tropsch et al.** because of appellants' requirement for the presence of the cross-linking monomer constituent (e).

The Examiner argued that "[m]onomers of acrylic and methacrylic esters are capable of acting as crosslinkers" pointing to the C₁-C₁₂-alkyl esters of (meth)acrylic acid, the hydroxyalkyl (meth)acrylates and the alkylethylene glycol (meth)acrylates having 1-50 ethylene glycol units in the molecule which are mentioned by **Tropsch et al.** as examples for monomers (d), and to appellants' explanations on page 8, indicated lines 4 to 13, of the application²¹⁾.

The Examiner's implied position that all monomers of (meth)acrylic acid are capable of acting as a crosslinking monomer corresponding to the constituent (e) of the copolymer referenced in appellants' claims is not only technically incorrect but also disregards specific requirements expressed in appellants' claims. According to appellants' definition of the monomer(s) (e) it is required that "at least two ethylenically unsaturated, nonconjugated double bonds" be present in the monomer. Neither the C₁-C₁₂-alkyl esters of (meth)acrylic acid, nor the hydroxyalkyl (meth)acrylates or the alkylethylene glycol (meth)acrylates having 1-50 ethylene glycol units in the molecule which are mentioned by **Tropsch et al.** contain two ethylenically unsaturated, nonconjugated double bonds:

- the alkyl group of the C₁-C₁₂-alkyl esters of (meth)acrylic acid does not contain any ethylenically unsaturated double bond;
- the hydroxyalkyl group of the hydroxyalkyl (meth)acrylates does not contain any ethylenically unsaturated double bond, and
- the alkylethylene glycol group of the alkylethylene glycol

19) Cf. col. 1, indicated lines 8 to 20, of **US 5,869,032**.

20) Cf. col. 2, indicated lines 38 to 52, of **US 5,869,032**.

21) Cf. page 4, line 21, to page 5, line 8, of the Office action mailed November 30, 2004.

(meth)acrylates does not contain any ethylenically unsaturated double bond.

The esters of (meth)acrylic acid which are mentioned by **Tropsch et al.** contain only one ethylenically unsaturated double bond, namely the double bond of the (meth)acrylic acid, and are therefore not capable of acting as a crosslinker, nor are they within the realm of the monomer constituent (e) specified in appellants' claims.

The explanatory remarks regarding constituent (e) of the monomer mixture which are provided by appellants in the specification cannot reasonably be taken to indicate otherwise. According to appellants' disclosure, the crosslinking monomers (e) are, for example "acrylic esters, methacrylic esters, allyl ethers or vinyl ethers of at least dihydric alcohols. The OH groups of the parent alcohols can be completely or partially etherized or esterified; however, the crosslinkers contain at least two ethylenically unsaturated groups"²²). To be suitable as a crosslinking monomer constituent (e) of the copolymer referenced in appellants' claims, any one of the at least dihydric alcohol, therefore, has to have at least two groups in which

- an -OH group of the alcohol forms an ester with the (meth)acrylic acid, and/or
- an OH group of the alcohol forms an ether with allyl or vinyl alcohol.

Otherwise, appellants' requirement that "at least two ethylenically unsaturated, nonconjugated double bonds" be present in the monomer(s) would not be met.

The Examiner's position that the copolymer of **Tropsch et al.** contains monomer units corresponding to appellants' crosslinking constituent (e), and the Examiner's conclusion that the subject matter of appellants' Claims 1 to 15 is, therefore, rendered unpatentable under Section 103(a) by the teaching of **Tropsch et al.** is, in light of the foregoing, deemed to be in error.

III) The Examiner erred when she applied Claims 1 to 13 of **Tropsch et al.** against appellants' Claims 1 to 15 under the judicially created doctrine of obviousness-type double patenting.

The Examiner asserted that the teaching of **Tropsch et al.** consti-

22) Cf. page 8, indicated lines 8 to 13, of the application, emphasis added.

tutes prior art only under 35 U.S.C. §102(e)²³). However, the U.S. patent of *Tropsch et al.* issued on February 09, 1999, whereas the present application was filed with the U.S. PTO on June 26, 2000, which is 16 months after the U.S. patent of *Tropsch et al.* issued, and the present application claims priority of a German application which was filed on June 29, 1999, which is 4 months after the U.S. patent of *Tropsch et al.* issued. The U.S. patent of *Tropsch et al.*, therefore constitutes prior art under Sections 102(a) and 102(b).

The judicially created doctrine of double patenting seeks to prevent the unjustified extension of patent exclusivity beyond the term of a first patent which has issued on an invention, and the doctrine was created to address situations where the first patent does not constitute prior art within the statutory provisions with regard to a second application²⁴). Where the first patent constitutes prior art which is applicable within the provisions of Sections 101, 102 and/or 103 against the invention claimed in a second application, any "unjustified extension" of the term of the earlier granted patent is forestalled by the statutory requirements. Also, a double patenting rejection of the obviousness-type is analogous to a failure to meet the non-obviousness requirement of Section 103 the only difference being that the patent principally underlying the double patenting rejection is not considered prior art within the framework of the statute²⁵), and any analysis employed in an obviousness-type double patenting rejection parallels the guidelines for a determination of obviousness under Section 103(a)²⁶). Accordingly, a rejection under the judicially created doctrine of obviousness-type double patenting which is based on a patent which falls within the realm of prior art within the meaning of 35 U.S.C. §102(a) and/or §102(b) cannot raise any issue which goes beyond the question whether the claimed invention is obvious within the meaning of Section 103(a).

The U.S. patent of *Tropsch et al.* constitutes prior art under 35 U.S.C. §102(a) and/or §102(b), and the Examiner's application of Claims 1 to 13 of the *Tropsch et al.* patent under the judicially

23) Cf. page 3, lines 18 to 20, of the Office action mailed November 30, 2004.

24) Cf. In re Braat, 937 F.2d 589, 594, 19 USPQ2d 1289, 1293 (CAFC 1991); In re Vogel, 422 F.2d 438, 441-42, 164 USPQ 619, 622 (CCPA 1970)

25) Cf. In re Braithwaite, 379 F.2d 594, 154 USPQ 29 (CCPA 1967).

26) Cf. In re Braat, 937 F.2d 589, 19 USPQ2d 1289 (CAFC 1991); In re Longi, 759 F.2d 887, 225 USPQ 645 (CAFC 1985)..

created doctrine of obviousness-type double patenting is therefore deemed to be in error.

IV) The Examiner erred finding appellants' Claims 14 and 15 were indefinite under the provisions of 35 U.S.C. §112, ¶2.

Appellants' Claim 14 depends upon Claim 1 and further specifies that the monomer mixture which is employed in the free-radical initiated copolymerization stage (i) consist of

- (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
- (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
- (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b), and from unsaturated acids and unsaturated anhydrides;
- (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, non-conjugated double bonds.

The Examiner took the position that appellants' Claim 14 was indefinite under Section 112, ¶2, because it "recites "monomer mixture" but a mixture is not described but rather, single components are described in (a) to (d)"²⁷⁾.

The "distinctly claim" requirement of Section 112, ¶2, means that a claim must have a clear and definite meaning when construed in the light of the complete patent document²⁸⁾, and the test of definiteness is whether a person of ordinary skill in the pertinent art would understand the bounds of the claim when reading it in the light of the supporting specification²⁹⁾. Moreover,

[i]n rejecting a claim under the second paragraph of 35 U.S.C. 112, it is incumbent on the examiner to establish that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would not have been able to ascertain with reasonable degree of precision and particular-

27) Cf. page 6, lines 20 to 21, of the Office action mailed November 30, 2004.

28) Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 227 USPQ 293 (CAFC 1985)

29) Morton Int. Inc. v. Cardinal Chem. Co., 5 F.3d 1464, 28 USPQ2d 1190 (CAFC 1993); Orthokinetics Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1 USPQ2d 1081 (CAFC 1986)

ity the particular area set out and circumscribed by the claims.^[30]

On the one hand, the expression "mixture" is generally understood as referring to a combination of two or more components. Appellants' Claim 14 refers to "a monomer mixture consisting of" the monomer constituents (a), (b), (d) and (e) in the specified weight percentages. Similar language is used in Claim 1, and it is not apparent to appellants how the respective wording requires further clarification. On the other hand, appellants are unable to understand why a person of ordinary skill in the art would have difficulties to determine the meets and bound of the subject matter which is defined in Claim 14. It is conventional in the pertinent field to define a copolymer by specifying the polymerization conditions and by enumerating the monomer constituents which are employed in the copolymerization, together with the respective weight percentages -or parts by weight- in which the monomer constituents are employed³¹⁾. In light of the convention, a person of ordinary skill who reads appellants' claim does not even need to turn to the supporting description in order to determine how the enumerated monomer constituents and their weight percentages relate to the monomer mixture and, ultimately, to the make-up of the copolymer referenced in appellants' claims. The Examiner's position that appellants' Claim 14 was indefinite within the meaning of Section 112, ¶2, is, therefore, deemed to be in error.

Appellants Claim 15 depends upon Claim 1 and further specifies that the monomer mixture which is employed in the free-radical initiated copolymerization stage (i) consist of the monomers (a) to (d) in the specified amounts, and the definition of the monomer constituents (a) to (d) which is provided in Claim 15 is identical with the definition of the monomer constituents (a) to (d) which is provided in Claim 1. The Examiner took the position that appellants' Claim 15 was indefinite under Section 112, ¶2, because "[i]n Claim 1, (b) cannot be (a), (d) cannot be (a), (b) or (c) and Claim 15 which is dependent on 1 recites the same (a), (b), (c), (d) and (e) and it is not clear which of what is recited in Claim 15 is applicable in claim 1"³²⁾.

As with the Examiner's criticism concerning Claim 14, appellants are unable to understand why Claim 15 could be regarded as being

30) Cf. Ex parte Wu, 10 USPQ2d 2031 at 2033 (BPAI 1989).

31) Cf., for example, col. 2, indicated lines 25 to 60, of *US 5,219,969*, and col. 1, indicated lines 8 to 18, of *US 5,869,031*.

32) Cf. page 6, lines 20 to 21, of the Office action mailed November 30, 2004.

indefinite under the provisions of Section 112, ¶2, or why a person of ordinary skill in the art who reads Claim 15 would encounter difficulties to determine the meets and bounds of Claim 15 with the necessary reasonable degree of precision and particularity. Claim 15 depends upon Claim 1 -and not vice versa-, and the limitations of Claim 1 are incorporated into Claim 15 by reference rather than the other way around. The limitations of Claim 15 have, therefore, no immediate effect on the scope of Claim 1. As such, the Examiner's statement that "*it is not clear which of what is recited in Claim 15 is applicable in claim 1*" does not appear to give rise to concerns under the provisions of Section 112, ¶2. It is also respectfully noted that Claims 1 and 15 independently define the monomer constituents (a) to (e) including the respective amounts. Accordingly, a person of ordinary skill in the art does not have to look at Claim 1 in order to determine the nature and the amounts of the monomer constituents of the monomer mixture referenced in Claim 15. Nor would a person of ordinary skill in the art consider to turn to Claim 15 in order to determine the the nature and the amounts of the monomer constituents of the monomer mixture which is specified in Claim 1. The Examiner's finding that appellants' Claim 15 was indefinite within the meaning of Section 112, ¶2, is, therefore, also deemed to be in error.

C O N C L U S I O N

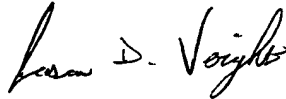
For the foregoing reasons, appellants respectfully urge that the Examiner erred finding that

- that appellants' Claims 1 to 15 were unpatentable under the provisions of 35 U.S.C. §103(a) in light of the teaching of *Uhl et al.*,
- that appellants' Claims 1 to 15 were unpatentable under the provisions of 35 U.S.C. §103(a) in light of the teaching of *Tropsch et al.*,
- that appellants' Claims 14 and 15 failed to meet the requirements of 35 U.S.C. §112, ¶2, and
- that Claims 1 to 13 of *Tropsch et al.* were applicable against appellants' Claims 1 to 15 under the judicially created doctrine of obviousness-type double patenting.

It is respectfully requested that the Examiner's respective rejections be reversed. Favorable action is solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 14.1437. Please credit any excess fees to such deposit account.

Respectfully submitted,
NOVAK DRUCE DELUCA & QUIGG



Jason D. Voight
Reg. No. 42,205

1300 Eye Street, N.W.
Suite 400 East Tower
Washington, D.C. 20005
(202) 659-0100

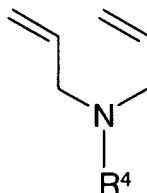
Encl.: THE CLAIMS ON APPEAL (Appendix I)

JDV/BAS

A P P E N D I X I:

THE CLAIMS ON APPEAL:

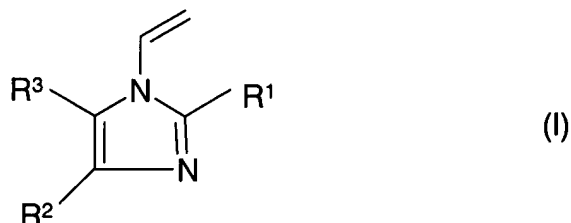
1. In a skin cosmetic or dermatological preparation selected from cosmetic compositions for cleansing the skin, cosmetic compositions for the care and protection of the skin, nail care compositions, and preparations for decorative cosmetics, the improvement wherein the composition consists essentially of customary additives and at least one copolymer obtained by
 - (i) free-radically initiated copolymerization of a monomer mixture comprising
 - (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
 - (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
 - (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,
 - (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and
 - (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; and
 - (ii) subsequent partial or complete quaternization and protonation of the polymer in the case where the monomer (a) is unquaternized or only partially quaternized.
2. The preparation as claimed in claim 1, wherein the protonation as in (ii) takes place during formulation of the preparation.
3. The preparation as claimed in claim 1, wherein monomer (a) is at least one diallylamine derivative of the formula (II),



(II)

in which the radical R^4 is C_1 - C_{24} alkyl.

4. The preparation as claimed in claim 1, wherein monomer (a) is at least one N-vinylimidazole derivative of the formula (I),



in which the radicals R¹ to R³ independently of one another are hydrogen, C₁-C₄-alkyl or phenyl.

5. The preparation as claimed in claim 1, wherein monomer (b) is at least one N-vinyl lactam.
6. The preparation as claimed in claim 1, selected from the group consisting of cosmetic compositions for cleansing the skin.
7. The preparation as claimed in claim 6, selected from the group consisting of soaps, syndets, liquid washing, shower and bath preparations.
8. The preparation as claimed in claim 1, selected from the group consisting of cosmetic compositions for the care and protection of the skin, nailcare compositions, and preparations for decorative cosmetics.
9. The preparation as claimed in claim 8, selected from the group consisting of skincare compositions, personal hygiene care compositions, footcare compositions, sunscreens, repellents, shaving compositions, depilatories, anti-acne compositions, makeup, mascara, lipsticks, eyeshadows, kohl pencils, eyeliners, blushers, powders and eyebrow pencils.
10. The preparation as claimed in claim 9, wherein the skincare compositions are selected from the group consisting of water-in-oil or oil-in-water skin creams, day and night creams, eye creams, antiwrinkle creams, moisturizers, bleaching creams, vitamin creams, skin lotions, care lotions and moisturizing lotions.
11. The preparation as claimed in claim 1, wherein the copolymer is used in the form of a water-in-oil emulsion.
12. The preparation as claimed in claim 11, wherein the copolymer has been polymerized in the emulsion or suspension.

13. The preparation as claimed in claim 12, wherein the oil phase of the emulsion or suspension comprises a cosmetic oil.
14. The skin composition or dermatological preparation of claim 1 wherein a monomer mixture consisting of
- (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
 - (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
 - (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b), and from unsaturated acids and unsaturated anhydrides;
 - (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds;
- is employed in the free-radical initiated copolymerization stage (i).
15. The skin composition or dermatological preparation of claim 1 wherein a monomer mixture consisting of
- (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
 - (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
 - (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,
 - (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a), from the monomers (b) and from the monomers (c); and
 - (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds;
- is employed in the free-radical initiated copolymerization stage (i).